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SEQUENCE LISTING

<110> Paszty, Christopher  
Gao, Yongming

<120> Cystine Knot Polypeptides: Cloaked-2 Molecules and Uses Thereof

<130> 01017/37428A

<140> US 10/679,670

<141> 2003-10-06

<150> US 60/208,550

<151> 2000-06-01

<150> US 60/223,542

<151> 2000-08-04

<160> 25

<170> PatentIn version 3.0

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<211> 759

<212> DNA

<213> Homo sapiens

<400> 1

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ttcaagaatg atgccacgga aatcatcccc gagctcggag agtacccega gcctccaccg      180
gagctggaga acaacaagac catgaaccgg gcggagaacg gagggcggcc tccccaccac      240
ccctttgaga ccaaagacgt gtccgagtag agctgccgcg agctgcactt caccgcctac      300
gtgaccgatg ggccgtgccg cagcgccaag ccggtcaccg agctggtgtg ctccggccag      360
tgcggcccg cgcgctgct gcccaacgcc atcggccgcg gcaagtgggtg gcgacctagt      420
gggcccgaact tccgtgcat ccccgaccgc taccgcgcgc agcgctgca gctgctgtgt      480
cccggtggtg aggcgcgcgc cgcgcgcaag gtgcgcctgg tggcctcgtg caagtgcaag      540
cgctcaccg gcttcacaaa ccagtcggag ctcaaggact tcgggaccga ggccgctcgg      600
ccgcagaagg gccggaagcc gcggccccgc gcccgagcgc ccaaagcaa ccaggccgag      660
ctggagaacg cctactagag cccgcccgcg cccctcccca ccggcgggcg ccccgccct      720
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<212> PRT

<213> Homo sapiens

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Met	Asn	Arg	Ala	Glu	Asn	Gly	Gly	Arg	Pro	Pro	His	His	Pro	Phe	Glu	35	40	45	
Thr	Lys	Asp	Val	Ser	Glu	Tyr	Ser	Cys	Arg	Glu	Leu	His	Phe	Thr	Arg	50	55	60	
Tyr	Val	Thr	Asp	Gly	Pro	Cys	Arg	Ser	Ala	Lys	Pro	Val	Thr	Glu	Leu	65	70	75	80
Val	Cys	Ser	Gly	Gln	Cys	Gly	Pro	Ala	Arg	Leu	Leu	Pro	Asn	Ala	Ile	85	90	95	
Gly	Arg	Gly	Lys	Trp	Trp	Arg	Pro	Ser	Gly	Pro	Asp	Phe	Arg	Cys	Ile	100	105	110	
Pro	Asp	Arg	Tyr	Arg	Ala	Gln	Arg	Val	Gln	Leu	Leu	Cys	Pro	Gly	Gly	115	120	125	
Glu	Ala	Pro	Arg	Ala	Arg	Lys	Val	Arg	Leu	Val	Ala	Ser	Cys	Lys	Cys	130	135	140	
Lys	Arg	Leu	Thr	Arg	Phe	His	Asn	Gln	Ser	Glu	Leu	Lys	Asp	Phe	Gly	145	150	155	160
Thr	Glu	Ala	Ala	Arg	Pro	Gln	Lys	Gly	Arg	Lys	Pro	Arg	Pro	Arg	Ala	165	170	175	
Arg	Ser	Ala	Lys	Ala	Asn	Gln	Ala	Glu	Leu	Glu	Asn	Ala	Tyr	180	185	190			

<210> 3

<211> 636

<212> DNA

<213> Mus musculus

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ggagagtacc	ccgagcctcc	tcctgagaac	aaccagacca	tgaaccgggc	ggagaatgga	180
ggcagacctc	cccaccatcc	ctatgacgcc	aaagatgtgt	ccgagtacag	ctgccgcgag	240
ctgcactaca	cccgttctc	gacagacggc	ccatgccgca	gcgccaagcc	ggtcaccgag	300
ttggtgtgct	ccggccagtg	cggccccgcg	cggctgctgc	ccaacgccat	cgggcgcgtg	360
aagtgggtggc	gcccgaacgg	accggatttc	cgctgcatcc	cggatcgcta	ccgcgcgcag	420
cgggtgcagc	tgctgtgccc	cgggggcgcg	gcgcccgcgt	cgcgcaaggt	gcgtctgggtg	480

gcctcgtgca agtgcaagcg cctcaccgcg ttcacacaacc agtcggagct caaggacttc 540  
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 aaagccaacc aggcggagct ggagaacgcc tactag 636

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 <213> Mus musculus

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 Arg Ala Glu Asn Gly Gly Arg Pro Pro His His Pro Tyr Asp Ala Lys  
 35 40 45  
 Asp Val Ser Glu Tyr Ser Cys Arg Glu Leu His Tyr Thr Arg Phe Leu  
 50 55 60  
 Thr Asp Gly Pro Cys Arg Ser Ala Lys Pro Val Thr Glu Leu Val Cys  
 65 70 75 80  
 Ser Gly Gln Cys Gly Pro Ala Arg Leu Leu Pro Asn Ala Ile Gly Arg  
 85 90 95  
 Val Lys Trp Trp Arg Pro Asn Gly Pro Asp Phe Arg Cys Ile Pro Asp  
 100 105 110  
 Arg Tyr Arg Ala Gln Arg Val Gln Leu Leu Cys Pro Gly Gly Ala Ala  
 115 120 125  
 Pro Arg Ser Arg Lys Val Arg Leu Val Ala Ser Cys Lys Cys Lys Arg  
 130 135 140  
 Leu Thr Arg Phe His Asn Gln Ser Glu Leu Lys Asp Phe Gly Pro Glu  
 145 150 155 160  
 Thr Ala Arg Pro Gln Lys Gly Arg Lys Pro Arg Pro Gly Ala Lys Ala  
 165 170 175  
 Asn Gln Ala Glu Leu Glu Asn Ala Tyr  
 180 185

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Met Gln Leu Pro Leu Ala Leu Cys Leu Val Cys Leu Leu Val His Thr  
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 20 25 30

Ala Thr Glu Ile Ile Pro Glu Leu Gly Glu Tyr Pro Glu Pro Pro Pro  
35 40 45

Glu Leu Glu Asn Asn Lys Thr Met Asn Arg Ala Glu Asn Gly Gly Arg  
50 55 60

Pro Pro His His Pro Phe Glu Thr Lys Asp Val Ser Glu Tyr Ser Cys  
65 70 75 80

Arg Glu Leu His Phe Thr Arg Tyr Val Thr Asp Gly Pro Cys Arg Ser  
85 90 95

Ala Lys Pro Val Thr Glu Leu Val Cys Ser Gly Gln Cys Gly Pro Ala  
100 105 110

Arg Leu Leu Pro Asn Ala Ile Gly Arg Gly Lys Trp Trp Arg Pro Ser  
115 120 125

Gly Pro Asp Phe Arg Cys Ile Pro Asp Arg Tyr Arg Ala Gln Arg Val  
130 135 140

Gln Leu Leu Cys Pro Gly Gly Glu Ala Pro Arg Ala Arg Lys Val Arg  
145 150 155 160

Leu Val Ala Ser Cys Lys Cys Lys Arg Leu Thr Arg Phe His Asn Gln  
165 170 175

Ser Glu Leu Lys Asp Phe Gly Thr Glu Ala Ala Arg Pro Gln Lys Gly  
180 185 190

Arg Lys Pro Arg Pro Arg Ala Arg Ser Ala Lys Ala Asn Gln Ala Glu  
195 200 205

Leu Glu Asn Ala Tyr  
210

<210> 6  
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<212> PRT  
<213> Mus musculus  
<400> 6

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1 5 10 15

Ala Phe Cys Ala Val Glu Gly Gln Gly Trp Gln Ala Phe Arg Asn Asp  
20 25 30

Ala Thr Glu Val Ile Pro Gly Leu Gly Glu Tyr Pro Glu Pro Pro Pro  
35 40 45

Glu Asn Asn Gln Thr Met Asn Arg Ala Glu Asn Gly Gly Arg Pro Pro  
50 55 60

His His Pro Tyr Asp Ala Lys Asp Val Ser Glu Tyr Ser Cys Arg Glu  
65 70 75 80

Leu His Tyr Thr Arg Phe Leu Thr Asp Gly Pro Cys Arg Ser Ala Lys  
85 90 95

Pro Val Thr Glu Leu Val Cys Ser Gly Gln Cys Gly Pro Ala Arg Leu

	100		105		110										
Leu	Pro	Asn	Ala	Ile	Gly	Arg	Val	Lys	Trp	Trp	Arg	Pro	Asn	Gly	Pro
		115					120					125			
Asp	Phe	Arg	Cys	Ile	Pro	Asp	Arg	Tyr	Arg	Ala	Gln	Arg	Val	Gln	Leu
	130					135					140				
Leu	Cys	Pro	Gly	Gly	Ala	Ala	Pro	Arg	Ser	Arg	Lys	Val	Arg	Leu	Val
145					150					155					160
Ala	Ser	Cys	Lys	Cys	Lys	Arg	Leu	Thr	Arg	Phe	His	Asn	Gln	Ser	Glu
				165					170					175	
Leu	Lys	Asp	Phe	Gly	Pro	Glu	Thr	Ala	Arg	Pro	Gln	Lys	Gly	Arg	Lys
			180					185					190		
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24

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aaaccacgcg cagaggacag aaatgt

26

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cgatccggga tgcagcggaa gtcg

24

<210> 11

<211> 27

<212> DNA

<213> Artificial sequence

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<223> PCR primer

<400> 11

ccatcctaata acgactcact atagggc

27

<210> 12

<211> 24

<212> DNA

<213> Artificial sequence

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24

<210> 13

<211> 23

<212> DNA

<213> Artificial sequence

<220>

<223> PCR primer

<400> 13

actcactata gggctcgagc ggc

23

<210> 14

<211> 25

<212> DNA

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<400> 14

ggacacatct ttggcgatcat aggga

25

<210> 15

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<210> 16  
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ggtcaccgag ttggtgtgct c 21

<210> 18  
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actcactata gggctcgagc ggc 23

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cgtactagta agcttcacc atgcagccct cactagcccc gtgcc 45

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<210> 21  
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<400> 21

tgtgtctcgt ctgcctgctg gtacaca 27

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<210> 23  
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<212> PRT  
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<210> 24  
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<220>  
<223> FITC conjugated - HIV TAT peptide construct

<400> 24



Gly Gly Gly Gly Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg  
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<210> 25  
<211> 183  
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<213> Homo sapiens

<400> 25

Phe Lys Asn Asp Ala Thr Glu Ile Leu Tyr Ser His Val Val Lys Pro  
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Val Pro Ala His Pro Ser Ser Asn Ser Thr Leu Asn Gln Ala Arg Asn  
20 25 30

Gly Gly Arg His Phe Ser Asn Thr Gly Leu Asp Arg Asn Thr Arg Val  
35 40 45

Gln Val Gly Cys Arg Glu Leu Arg Ser Thr Lys Tyr Ile Ser Asp Gly  
50 55 60

Gln Cys Thr Ser Ile Ser Pro Leu Lys Glu Leu Val Cys Ala Gly Glu  
65 70 75 80

Cys Leu Pro Leu Pro Val Leu Pro Asn Trp Ile Gly Gly Gly Tyr Gly  
85 90 95

Thr Lys Tyr Trp Ser Arg Arg Ser Ser Gln Glu Trp Arg Cys Val Asn  
100 105 110

Asp Lys Thr Arg Thr Gln Arg Ile Gln Leu Gln Cys Gln Asp Gly Ser  
115 120 125

Thr Arg Thr Tyr Lys Ile Thr Val Val Thr Ala Cys Lys Cys Lys Arg  
130 135 140

Tyr Thr Arg Gln His Asn Glu Ser Ser His Asn Phe Glu Ser Met Ser  
145 150 155 160

Pro Ala Lys Pro Val Gln His His Arg Glu Arg Lys Arg Ala Ser Lys  
165 170 175

Ser Ser Lys His Ser Met Ser  
180